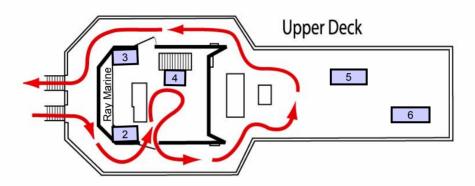
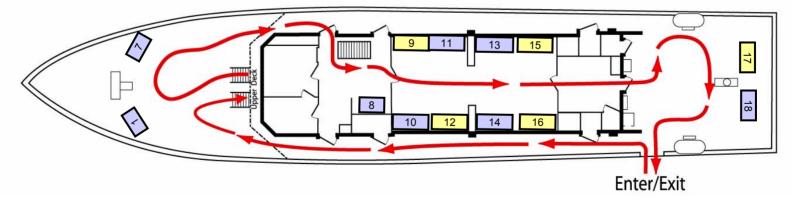
Office of Naval Research AFLOAT LAB



New York Fleet Week 2003

May 21-27





- 1. Surf Zone Crawler
- 2. Survivable Automation Technology **
- 3. Remote Monitoring of Spaces**
- 4. Remote Machinery Monitoring**
- 5. Marine Corps Warfighting Lab
- 6. Dragon Warrior with MicroStar Sensors
- 7. Silver Fox-UAV

- 8. Omni-view Camera**
- 9. NOMAD Retinal Projection System
- 10. Remote Paint Inspection System
- 11. ONR Tech Solutions
- 12. Quik-Clot/Oxy Generator
- 13. Digital MP Face Recognition
- 14. Advanced Hull Forms

- 15. Cooled Armor Vest
- 16. Chemical Sensors
- 17. REMUS-AUV
- 18. CETUS-UUV

**Denotes installed technology

(YPNYDeckPlan2003-Final Revised 5/14/031600)

2003 Afloat Lab Technology Displays

#1 Surf Zone Crawler

Mine-seeking crawler designed for the dangerous surf zone helped searched caves in Afghanistan during Operation Enduring Freedom.

#2 Survivable Automation Technology

Communications network can route around breaks. Multiple shipboard systems can remain functional even when a portion of the links are damaged.

#3 Remote and Mobile Monitoring of Shipboard Spaces

Mobile monitor peeks into remote nooks and crannies. Routine patrols or remote equipment can be monitored from any location on the vessel with personal digital assistants.

#4 Remote Machinery Monitoring

Sensors monitor changes in vibration, temperature, voltage, current and electrical frequency on the ship's diesel generators, to help crew predict failures—saving time and money.

#5 Marine Corps Warfighting Lab

Prepares for the future battle. Featured technologies include: Dragon Eye unmanned aerial vehicle, Integrated Intra Squad Radio, Urban Breaching Kit, the Expeditionary First Aid Kit, Dragon Runner mobile ground sensor, P90 Submachine Gun, and the Auto Lightweight Grenade Launcher.

#6 Dragon Warrior with MicroStar Sensors

Sensor payload lets mini-helicopter see. Long range color camera and infrared sensor provide daylight surveillance and night time observation.

#7 Silver Fox Unmanned Aerial Vehicle

UAV keeps eye on whales—and enemies. Designed to monitor migrating whales, Silver Fox can carry and transmit still photographs as well as video. Marines relied on the vehicle to see over the next hill during Operation Iraqi Freedom.

#8 360° Omniview Camera

Camera captures complete circular view. Omni directional camera monitors a complete 360° image simultaneously — ideal for periscopes and force protection.

#9 Nomad Retinal Projection Glasses

Nomad is a high-resolution daylight readable, see-through display that "paints an image" directly onto the eye. With Nomad, a computer display is superimposed over what the eye sees.

#10 Remote Tank Inspection Systems

The Remotely Operated Paint Inspector can swim and hover in tanks, checking their walls for damage or corrosion. The Insertable Stalk Imaging System can be used for mapping damage and tracking changes.

#11 ONR - Tech Solutions

Tech Solutions is focused on rapidly delivering needed technology to the Fleet/Force. Sailors and Marines can use the Tech Solutions web site to make suggestions for technical solutions.

#12 QuikClot & Portable Oxygen Generation System

QuikClot is a granular material you simply pour on a wound to stop bleeding quickly. The Portable Oxygen Generation System pulls oxygen out of the air and delivers it under pressure to a patient—eliminating the need for dangerous oxygen canisters.

#13 Digital MP Wearable Computing System

Showcasing face recognition software developed in part through support from the Office of Naval Research, this wearable system allows for live video feeds directly to the field for face recognition, navigation, data and communications.

#14 Advanced Hull Forms

The Office of Naval Research supports development of new ship designs. The X-Craft is being tested for use in the littoral (coastal) environment and SeaSlice provides a stable platform even at high speeds.

#15 Cooled Armor Vest

This personal air conditioning unit pumps cool air directly into an aviator's flight suit, and even provides some ballistic protection.

#16 Chemical Sensors

These handheld devices can alert sailors and Marines to the presence of dangerous chemicals.

#17 REMUS Autonomous Underwater Vehicle

REMUS was designed to conduct oceanographic sampling, but was deployed in Operation Iraqi Freedom to help locate mines.

#18 CETUS Unmanned Underwater Vehicle

This small, cost-effective vehicle was designed to seek out mines. It's easy to deploy and can automatically alter its course to adjust for changes in current.

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